SANTA CRUZ BIOTECHNOLOGY, INC.

COG8 siRNA (m): sc-142456

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The Power to Question

BACKGROUND

The structure and function of the Golgi apparatus is controlled by a number of multi-protein complexes that are involved in glycosylation reactions and vesicular transport. The conserved oligomeric Golgi (COG) complex consists of three subcomplexes, termed LDLC, SEC34 and GTT (Golgi transport complex), all of which contain proteins necessary for proper Golgi operation. COG8 (conserved oligomeric Golgi complex subunit 8), also known as component of oligomeric Golgi complex 8, DOR1 or CDG2H, is a 612 amino acid peripheral membrane protein that is required for normal Golgi function and is a member of the COG8 family. Defects in the gene encoding COG8 are associated with congenital disorder of glycosylation type 2H (CDG2H), an inherited disorder that leads to under-glycosylation of serum proteins.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Cog8 (mouse) mapping to 8 D3.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

PRODUCT

COG8 siRNA (m) is a pool of 3 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see COG8 shRNA Plasmid (m): sc-142456-SH and COG8 shRNA (m) Lentiviral Particles: sc-142456-V as alternate gene silencing products.

For independent verification of COG8 (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-142456A, sc-142456B and sc-142456C.

STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNAses and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

COG8 siRNA (m) is recommended for the inhibition of COG8 expression in mouse cells.

SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10 µM in 66 µl. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor COG8 gene expression knockdown using RT-PCR Primer: COG8 (m)-PR: sc-142456-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.